

# REPORT DOCUMENTATION PAGE

Form Approved  
OMB No. 0704-0188

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1. AGENCY USE ONLY (Leave blank) 2. REPORT DATE 1 Feb 84 3. REPORT TYPE AND DATES COVERED Quarterly & Development (1 Jul 83/9/83)

4. TITLE AND SUBTITLE  
ATTENUATION IN THE WESTERN GREAT BASIN

5. FUNDING NUMBERS

61101E  
AO 4397

6. AUTHOR(S)

Drs. Keith F. Priestley & Alan S. Ryall

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

Universtiy of Nevada  
Reno, NV 89557

8. PERFORMING ORGANIZATION  
REPORT NUMBER

AFOSR - 89 - 1447

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)

AFOSR  
BLDG 410  
BAFB DC 20332-6448

10. SPONSORING/MONITORING  
AGENCY REPORT NUMBER

F49620-83-C-0012

11. SUPPLEMENTARY NOTES

12a. DISTRIBUTION/AVAILABILITY STATEMENT

Approved for public  
distribution

12b. DISTRIBUTION CODE

13. ABSTRACT (Maximum 200 words)

Progress during the reporting period: (1) Brought SRO data for events recorded in Hot Creek Valley from Scripp's Prime to Seismology Laboratory. Because of difficulties in reading prime tape format on the PDP 11/70, it was decided to analysis data on the prime, (2) Reanalyzed regional data across NTS.

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14. SUBJECT TERMS

15. NUMBER OF PAGES

3

16. PRICE CODE

17. SECURITY CLASSIFICATION  
OF REPORT

unclassified

18. SECURITY CLASSIFICATION  
OF THIS PAGE

unclassified

19. SECURITY CLASSIFICATION  
OF ABSTRACT

20. LIMITATION OF ABSTRACT

NSN 7540-01-280-5500

Standard Form 298 (890104 Draft)  
Prescribed by ANSI Std. Z39-18  
298-01

89 11 20 065

AD-A214 760



UNIVERSITY OF NEVADA - RENO - NEVADA - 89557

Mackay School of Mines  
Seismological Laboratory

Telephone (702) 784-4975

1 February 1984

AFOSR - TR - 89 - 1447

Quarterly Research and Development Status Report

No. 4

1 July 1983 - 30 September 1983

ARPA Order: 4397  
Program Code: 3D60  
Name of Grantee: University of Nevada - Reno  
Grant Expiration Date: 30 September 1984  
Amount of Grant: \$203,692  
Grant Number: 49620-83-C-0012  
Principal Investigators: Keith F. Priestley  
Alan S. Ryall  
Program Manager: Keith F. Priestley  
Short Title of Work: ATTENUATION IN THE WESTERN  
GREAT BASIN

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Advanced Research Projects Agency (DOD)  
ARPA Order No. 4397  
Monitored by AFOSR Under Grant 49620-83-C-0012

## **1. Research Program and Plan**

- (a) Operate three wideband, digital seismic stations in the western Great Basin as a dispersed network.
- (b) Use data from these stations to examine variations in  $m_b$  and  $t^*$  from area to area in the western Great Basin.
- (c) Investigate ways in which high-quality digital stations may be used to improve seismic verification at regional distance ranges.
- (d) Study variations in the attenuation operator for multiple  $S_e S$  recorded at western U.S. stations.
- (e) Study  $m_b/M_s$  relationships for Mammoth earthquake sequence.

## **2. Status of Project**

### **(a) Progress During the Reporting Period:**

(1) Brought SRO data for events recorded in Hot Creek Valley from Scripps's Prime to Seismology Laboratory - because of difficulties in reading Prime tape format on the PDP 11/70, it was decided to analysis data on the Prime.

(2) Reanalyzed regional data across NTS.

### **(b) Major Equipment Purchased During Reporting Period: None.**

### **(c) Change in Key Personnel During the Reporting Period: None.**

### **(d) Trips, Meetings, Papers Given During the Reporting Period:**

#### **(1) Priestley's travel:**

(a) to LaJolla, Calif. to copy SRO tapes.

(b) to Switzerland and Germany to attend CCSS and IUGG meetings; presented paper on southern Nevada data.

#### **(2) Ryall's travel:**

(a) 7/27-28 DARPA panel meeting to review TTBT procedures + research. Washington, D.C.

### **(e) Problems Encountered: Reading Prime data format.**

### **(f) No deviation in the planned effort to achieve the objective of the contract is anticipated.**

### **(g) Fiscal Status:**

1. Amount currently provided in contract: \$203,892

2. Expenditures and commitments to date: \$34,883
3. Estimated funds required to complete this work: \$203,692
4. Estimated date of completion of work: 30 September 1984